

EDITORIAL COMMENT†

RUPTURED INTERVERTEBRAL DISC:
AN UNFINISHED PROBLEM

Recently a wave of enthusiasm favoring laminectomy for severe sciatic pain has swept the country. Indeed, one well-known surgeon has said that ruptured intervertebral disc was a common cause of sciatic pain.¹ Excellent results have been described following laminectomy for ruptured intervertebral disc.² It is well to review several of the procedures that have been performed in the past for sciatic pain, and to append the reported percentage of good results from each procedure.

Procedure	Excellent or Good Results (Per Cent)	Author
Ober fasciotomy	75	Smith ³
Lumbosacral fusion	72	Ghormley and Wesson ⁴
Epineural sacral injection	66	Whitaker ⁵
Heat and electrotherapy	90	Schmidt and Smith ⁶
Intravenous injection of sodium salicylate	100	Sutton ⁷
Heyman fasciotomy	76	Heyman ⁸
Manipulation	87	Freeman ⁹
Novocaine injection to sacroiliac joint	60	Haldeman and Soto-Hall ¹⁰

Horowitz¹¹ has shown that in a series of twenty-five cadavers, posterior herniation of the intervertebral disc into the spinal canal occurred in nine cases. On reviewing the histories of these cases, Horowitz found no complaint of sciatica and that backache was an infrequent and minor symptom. Schmorl¹² had previously pointed out the frequency of intervertebral disc variations in cadavers.

Despite the evident relief afforded many patients by excision of a ruptured nucleus pulposus, some

patients are unable or unwilling to resume their work following the procedure.¹³

One must realize that many structures of the back are altered by a laminectomy. Muscles and fasciae are severed and manipulated with retractors. Articular facets may be excised. It is possible that in some "cured" cases relief from pain is afforded by these procedures rather than by enucleation of the ruptured intervertebral disc. Moreover, Love² admits that pressure from a ruptured disc may subside, and thus a patient cure himself. Furthermore, the mortality following laminectomy by excellent surgeons for disc and ligamentum flavum lesions may be as high as 5 per cent.¹⁴

From the statements above one is led to the conclusion that the intervertebral disc lesion is not a closed chapter in our knowledge of sciatic pain.

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LACTATION IMMUNITY

Some of the present confusion, in reference to the alleged rôle of colostrum in the transfer of specific immunity to infants, may be dissipated by the immunogenetic studies recently reported by Schneider and Szathmáry¹ of Budapest, Hungary.

From the immunogenetic point of view, domestic animals may be divided into four main groups, depending upon the type of placentation. In horses, swine, cattle, and other animals of Group I, the maternal and fetal circulations are separated by seven distinct layers of tissue through which antibody transfer must take place. Both the maternal epithelium and the chorionic epithelium are intact in this group, the two epitheliums being separated by a thin layer of colloidal secretions. In the sheep and other animals of Group II, the uterine epithelium and the layer of secretion are both absent, the chorionic epithelium being in direct contact with maternal connective tissue. In the dog and other animals of Group III, this intervening connective tissue layer is also absent, the chorionic epithelium coming in direct contact with the outer walls of the maternal capillaries. In man, anthropoid apes, rabbits, and other members of Group IV, even this capillary endothelium is lacking, the chorionic epithelium coming in direct contact with the maternal blood.

One would expect from these differences that transplacental transmission of antibodies would be least effective in Group I, and that the new-born of this group would have to rely mainly on lactic transfer of specific antibodies. Prenatal transfer of antibodies would, presumably, become more effective as one passes to the higher groups, the most effective transfer presumably taking place in members of the fourth group. In order to confirm these deductions, the Budapest clinicians injected

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